

FC-20

FC-10

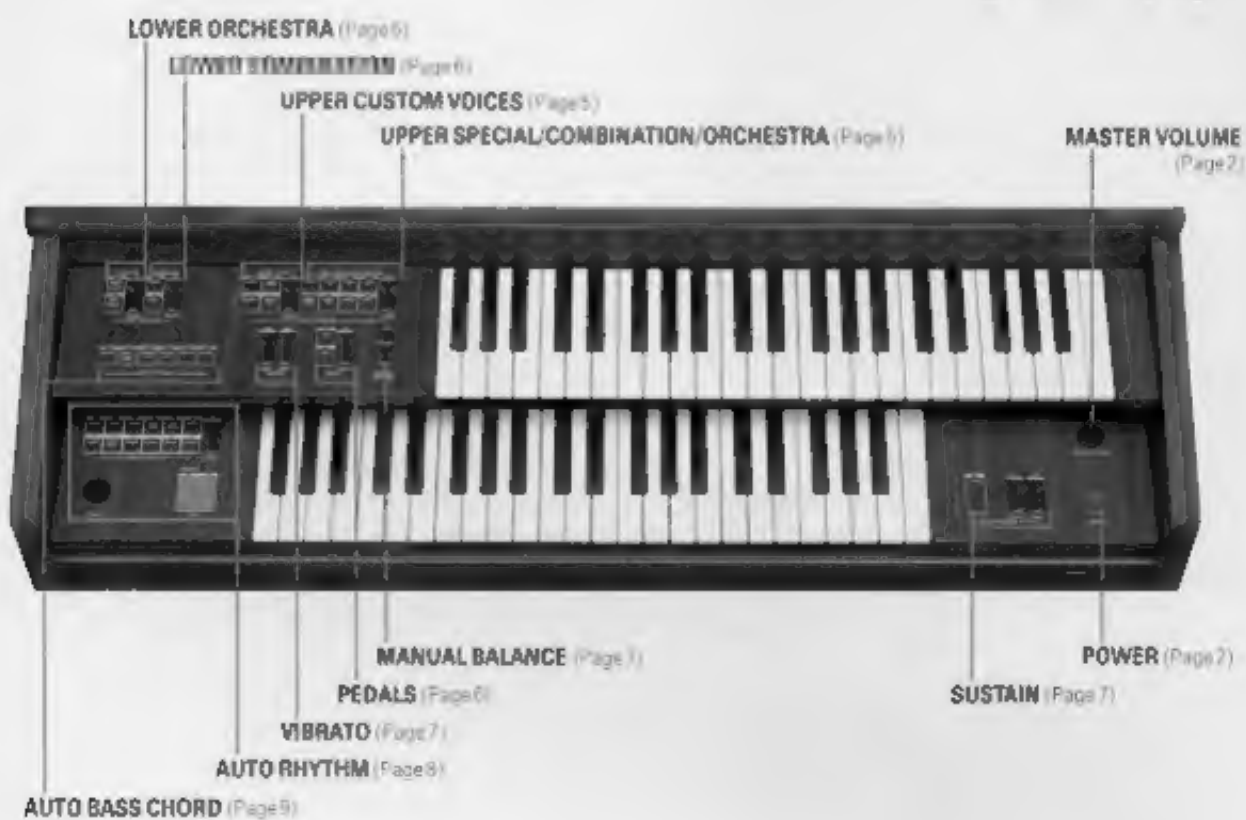
MAKING THE MOST OF YOUR ELECTONE
MACHEN SIE DAS BESTE AUS IHREM ELECTONE
POUR TIRER LE MEILLEUR PARTI DE VOTRE ELECTONE
UTILIZANDO SU ELECTONE AL MÁXIMO

YAMAHA ELECTONE®

FC-20



FC-10



Congratulations! With your purchase of a Yamaha Electone you have acquired the most advanced electronic organ available today. In the FC-20/FC-10 Electone, Yamaha has combined the superb craftsmanship it has acquired over many years of making fine musical instruments with the latest developments in modern electronic technology. We are confident that you will be particularly pleased with the unique "Living Sound" and "Rich Ambience" that Yamaha's original digital electronic technology has made possible. We also believe that the wide variety of easy-to-play features incorporated in your Electone will provide you with endless satisfaction and musical pleasure.

Willkommen in Yamahas wunderbarer Welt der Musik!

Herzlichen Glückwunsch! Mit dem Kauf eines Yamaha Electones haben Sie eine der anspruchsvollsten elektronischen Orgeln erworben, die es heute gibt. In den Modellen FC-20/FC-10 hat Yamaha das handwerkliche Können, das es durch langjährige Erfahrung mit der Herstellung hochwertiger Musikinstrumente erworben hat, mit den jüngsten Entwicklungen moderner elektronischer Technologie vereint. Wir sind sicher, daß Sie mit dem einzigartigen "lebendigen Klang" und der "vibrierenden Atmosphäre", die durch Yamahas einzigartige digitale Elektronik-Technologie ermöglicht wurden, besonders viel Freude haben werden. Außerdem glauben wir, daß Ihnen die große Vielfalt von Besonderheiten, die Ihr Spiel auf Ihrem Electone erleichtern, unendlich viel Vergnügen und musikalische Freude bereiten werden.

Bienvenue dans l'univers musical de Yamaha

Nous tenons avant tout à vous remercier pour avoir porté votre choix sur l'orgue électronique Electone FC-20/FC-10, l'un des plus perfectionnés actuellement disponibles sur le marché. Ses performances exceptionnelles, la qualité incontestable de la reproduction sonore et cette sensation de "richesse" qui en font un instrument particulièrement prisé le doivent à un savoir-faire immense, issu de longues années de recherche dans le domaine des appareils de reproduction sonore et à l'étendue des technologies mises en œuvre dans le domaine de l'électronique. Nous sommes certains que l'attrait des "facilités" incorporées approchera une satisfaction immense et l'assurance d'un plaisir musical sans compromis.

¡Bienvenido al maravilloso mundo musical Yamaha!

¡Enhorabuena! Al adquirir un Electone Yamaha habrá conseguido el órgano electrónico más avanzado actualmente disponible. En el Electone FC-20/FC-10, Yamaha ha combinado la soberbia pericia que ha adquirido a través de los muchos años de fabricación de instrumentos musicales con los últimos logros de la moderna tecnología electrónica. Estamos seguros de que en especial le encantarán las peculiaridades "sonido vivo" y "Ambiente rico" que la tecnología electrónica digital original de Yamaha ha hecho posible. También creemos que la gran variedad de características para tocar fácilmente que incorpora su Electone le ofrecerán satisfacción y placer musical ilimitados.

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I. GETTING ACQUAINTED WITH YOUR ELECTONE

We know that you're anxious to get started! But...Have you read the **INSTALLATION AND MAINTENANCE** section? If not, this is the time to do so, and you can find that section on page 14.

Now that you've read the **INSTALLATION AND MAINTENANCE** section, let's begin. If we seem to start from a point that seems overly "basic", please be patient. We will get to the study of individual effects and controls right after we satisfy your urge to play something...anything at all...just to reassure yourself that you are the master of this new purchase, and that you did select wisely.

First, a few basic controls must be identified.

- 1) The **POWER** switch located on your right must be on. Naturally, the A/C plug has to be plugged in, too!

The power indicator lamp will light up.



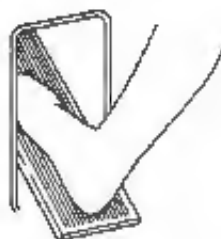
POWER

- 2) The **MASTER VOLUME** control should be turned clockwise to a position where the white mark is vertical. You may want to change this setting from time to time.

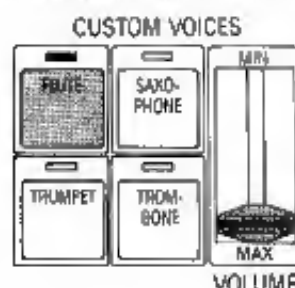


MASTER VOLUME

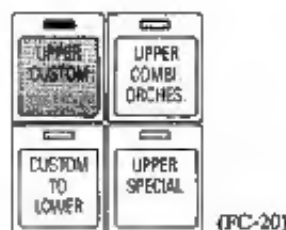
- 3) Your Electone has an **EXPRESSION PEDAL** which must be pushed down slightly in order that the music you're about to produce can be heard.



- 4) Next, set the buttons and slide control of the **CUSTOM VOICES** section as shown in the illustration.



With the FC-20, also set the buttons in **ENSEMBLE** section.



ENSEMBLE

- 5) Now, play something on the **Upper Keyboard**. You heard a beautiful flute sound, didn't you? Well...let's examine each of the controls one by one.

★ KEYING PRIORITIES

Upper Keyboard: A total of seven keys may be played at any one time.

★ Custom Voices are **MONOPHONIC**, meaning that only one note at a time can be played, and if more than one note is pressed, the Custom Voices will play the note farthest to the right.

Lower Keyboard: A total of seven keys may be played at any one time.

Pedal Keyboard: The Pedal Keyboard is **MONOPHONIC** (meaning that only one note at a time can be played). When more than one pedal is pressed, the highest note (pedal farthest to the right) will be heard.

II. FEATURE BY FEATURE EXPLANATION

ENSEMBLE SECTION (FC-20 only)

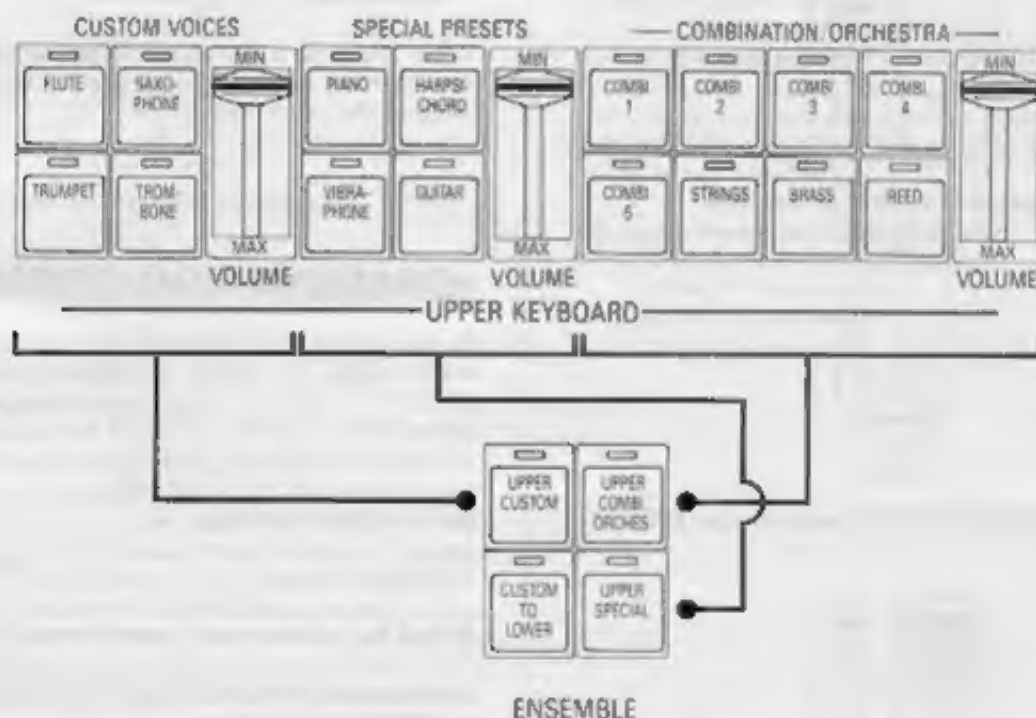


(FC-20)

ENSEMBLE

With the FC-20, turning the voice sections of the Upper Keyboard on and off is controlled by the ENSEMBLE section. The Upper Keyboard has the 3 voice sections COMBINATION/ORCHESTRA, SPECIAL PRESETS, and CUSTOM VOICES. By pressing two or more of the ENSEMBLE buttons, these voices can be combined.

The illustration below shows which ENSEMBLE buttons correspond to which voice section. Since the ENSEMBLE buttons have the same color as the voice section they correspond to, it is very easy to use them. Once you've gotten used to this kind of operation, try to combine various voices to create just the kind of sound you want. (The FC-10 does not have an ENSEMBLE section, but it is possible to combine the CUSTOM VOICES with other voice sections.)



- ★ The CUSTOM TO LOWER button on the lower left has the function of transferring the CUSTOM VOICES to the Lower Keyboard. (See page 6 for details.)

VOICE SECTIONS FOR UPPER KEYBOARD (FC-20)



(FC-20)

CUSTOM VOICES

These selectors (outlined in gold) are used to re-create several known solo instruments. Since these are solo instruments, only one note may be played at any given time. To familiarize yourself with the operation of this section, please try the following examples:

- 1) Select a voice.



- 2) Pull the volume slide control toward you.



- 3) Press the UPPER CUSTOM button in the ENSEMBLE section.



ENSEMBLE

When you press a note on the Upper Keyboard, you will now hear the sound that you selected in step #1. To appreciate the tremendous versatility of your Electone, take this opportunity to listen to the remaining sounds in this section.

SPECIAL PRESETS

These selectors (outlined in orange) are used to re-create some of the more percussive sounds of the orchestra, such as piano, harpsichord and vibraphone. Operation is the same as for the CUSTOM VOICES.

- 1) Select a voice.
- 2) Pull the volume slide control toward you.
- 3) Press the UPPER SPECIAL button in the ENSEMBLE section.

When you press a key on the Upper Keyboard, you will now hear the sound that you selected in step #1. Also listen to the other voices.

COMBINATION/ORCHESTRA

In this section (outlined in blue), you can produce two major types of voices, COMBINATION and ORCHESTRA. Various "organ" sounds are preset in COMBINATION, while the sounds of the major instrumental sections of an orchestra, including strings, brass and reeds, are preset in ORCHESTRA. Operation is the same as for the CUSTOM VOICES.

- 1) Select a voice.
- 2) Pull the volume slide control toward you.
- 3) Press the UPPER COMBI ORCHES. button in the ENSEMBLE section.

Now, when you press a note on the Upper Keyboard, you will hear the sound that you selected in step #1. Also listen to the other voices.

● Tones Preset in COMBINATION

- COMBI. 1: Flute coupler sound 1
- COMBI. 2: Flute sound
- COMBI. 3: Jazz organ sound
- COMBI. 4: Full coupler organ sound
- COMBI. 5: Flute coupler sound 2

VOICE SECTIONS FOR UPPER KEYBOARD (FC-10)



(FC-10)

SPECIAL PRESETS/COMBINATION/ORCHESTRA

In this section, you can produce three major types of voices.

In the SPECIAL PRESETS section (outlined in orange), the more percussive sounds such as piano or harpsichord are preset, while the COMBINATION section (outlined in blue) comprises presets for various organ sounds and the ORCHESTRA section (also outlined in blue) presets for strings and brass sounds. Operation is the same as for the CUSTOM VOICES.

1) Select a voice.

2) Pull the volume slide control toward you.

Now, when you press a note on the Upper Keyboard, you will hear the sound that you selected in step #1. Also listen to the other voices.

● Tones Preset in COMBINATION

- COMBI. 1: Flute coupler sound
- COMBI. 2: Flute sound
- COMBI. 3: Jazz organ sound
- COMBI. 4: Full coupler organ sound

CUSTOM VOICES

These selectors (outlined in gold) are used to re-create several known solo instruments. Since these are solo instruments, only one note may be played at any given time. To familiarize yourself with the operation of this section, please try the following examples:

1) Select a voice.



2) Pull the volume slide control toward you.



When you press a note on the Upper Keyboard, you will now hear the sound that you selected in step #1. To appreciate the tremendous versatility of your Electone, take this opportunity to listen to the remaining sounds in this section.

By setting these voices together with those of SPECIAL PRESETS, COMBINATION and ORCHESTRA (explained in the following), you can create a really rich sound.

VOICE SECTIONS FOR LOWER KEYBOARD



COMBINATION

In this section, two types of "organ" sounds are preset. Please select either one of them and pull the volume control towards you. You can also combine these sounds with the following ORCHESTRA voices.

COMBI 1: Flute sound
COMBI 2: Flute + Clarinet

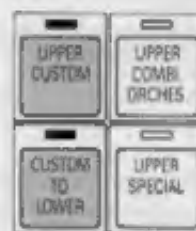
ORCHESTRA

In this section, strings and brass sounds are preset. Select either of them and pull the volume control towards you. You can also combine these sounds with the COMBINATION voices.

★ When using AUTO BASS CHORD and AUTO RHYTHM, strings change to guitar and brass to piano automatically. (See page 9 for details.)

● CUSTOM VOICES (FC-20 only)

With the FC-20, it is possible to produce CUSTOM VOICES with the Lower Keyboard as well. Select a voice, pull the volume control towards you and press the UPPER CUSTOM and CUSTOM TO LOWER buttons in the ENSEMBLE section.



ENSEMBLE

- ★ When the CUSTOM VOICES are transferred to the Lower Keyboard, it is not possible to produce CUSTOM VOICES sounds with the Upper Keyboard.
- ★ When using AUTO BASS CHORD, it is not possible to transfer CUSTOM VOICES to the Lower Keyboard.

VOICE SECTION FOR PEDAL KEYBOARD



(FC-20)

In this section, the bass sounds for the Pedal Keyboard are preset. Select a voice and pull the volume control towards you. By using BASS, you can produce "organ type" sounds, and in addition, the FC-20 has CONTRABASS and ELECTRIC BASS sounds.

EFFECTS AND CONTROLS



VIBRATO

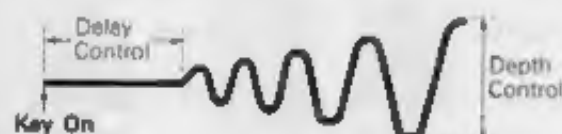
Vibrato can be applied to the sound produced by Upper, Lower and Pedal Keyboards. Depending on how you set the slide controls, you can produce either a normal or a delayed vibrato effect.

● Normal Vibrato

To produce the normal vibrato effect, pull the DEPTH control toward you; the farther forward the control is pulled, the more pronounced the vibrato.

● Delayed Vibrato (Upper Keyboard)

This vibrato does not start until some time after a note has been played on the Upper Keyboard. Set the DEPTH control to the desired amplitude, then pull the DELAY control toward you to achieve a delayed vibrato; the farther toward you pull the control, the longer the delay.



MANUAL BALANCE

This variable control (located on the panel to the left of the Upper Keyboard) is helpful when you want to adjust the relative balance between the volume of the Upper and Lower Keyboards. The volume for the Upper Keyboard increases when it is moved toward the UPPER position, while the volume for the Lower Keyboard increases when it is moved toward the LOWER position.



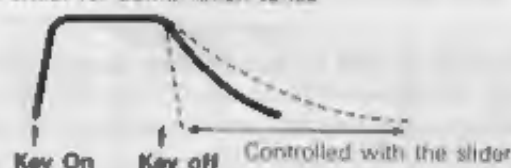
SUSTAIN

The SUSTAIN function allows a gradual fade-out of sound after the keys have been released. It can be utilized with any voice on either the Upper or Pedal Keyboards.

● Upper Sustain

Press the UPPER button to sustain the sounds generated by the Upper Keyboard and use the UPPER slide control to regulate the length of the fade-out.

Sustain effect for Combination tones



★ The sustain effect cannot be added to the CUSTOM VOICES.

★ The length of the fade-out for the SPECIAL PRESETS is fixed and cannot be adjusted with the UPPER control.

● Pedal Sustain

Simply pull the PEDAL slide control towards you to apply the desired fade-out to the sound generated by the Pedal Keyboard.

● Knee Lever Control (FC-20 only)

The knee lever (located beneath the keyboards) can be used to turn the SUSTAIN function for the Upper Keyboard "ON" or "OFF". To operate, press the UPPER button, adjust the slide controls to your taste, and move the knee lever to the right. Hold the lever in this position for as long as you desire SUSTAIN, and release the lever when you want to turn it off.

AUTO RHYTHM UNIT



(This photograph shows FC-20)

AUTO RHYTHM

The Auto Rhythm Unit of your Electone features a variety of very authentic percussion sounds.

Follow the simple step-by-step procedure outlined below, which describes the operation of your Auto Rhythm Unit.

- 1) Select and press one of the 12 Rhythm Pattern buttons.



- 2) Pull the VOLUME slide control toward you.

- 3) Adjust the tempo of the rhythm.

The TEMPO control is used to regulate the speed of the Auto Rhythm Unit. To increase the speed, turn it clockwise. To decrease the speed, turn the control counterclockwise.

- 4) Press the START button on the right.

Subsequently, the rhythm selected in step 1 above will begin. Take this opportunity to listen to the other possibilities.

The 12 rhythm patterns can be combined by pressing any two buttons in the top row or in the bottom row simultaneously. (A button in the top row and one in the bottom row cannot be combined.)

● START and SYNCHRO START

There are two ways to activate the Auto Rhythm Unit. When the START button is turned on, the rhythm will begin immediately, from the first beat. When using SYNCHRO START (left selector), the rhythm will wait for you to press either a Lower Keyboard or Pedal note, and then it will begin from the first beat. This feature allows the rhythm to be synchronized with you...starting only when you do.

● Downbeat Indicator Lamp

Once the rhythm has been activated, this lamp will flash at the first beat (downbeat) of each measure.

In addition, when SYNCHRO START is in use, this lamp will act as a silent visual metronome, indicating the exact tempo until the rhythm is started.

● AUTO VARIATION (FC-20 only)

This function allows you to introduce a preselected one-bar rhythmic variation into the music every four or eight bars. Since the rhythms change at natural breaks in the musical phrasing, it provides an excellent way to enliven the music.

If you depress the ON (4 BAR) button only, the new rhythm variation pattern will be introduced every four bars.



To introduce the variation every eight bars you must depress both the ON (4 BAR) and 8 BAR buttons simultaneously.

● Foot Switch Control (FC-20 only)

If the foot switch (located at the rear left of the expression pedal) is moved to the left, the rhythm will stop. If the foot switch is activated again, the rhythm will re-start.

AUTOMATIC FEATURES



(This photograph shows FC-20)

AUTO BASS CHORD

The AUTO BASS CHORD section is sometimes referred to as the "Easy Play" section because advanced styles of chord and bass accompaniment can be produced with almost no musical background. From beginners to advanced players, the Auto Bass Chord feature will always add to your performance.

Automatic Accompaniment with the Touch of a Finger <SINGLE FINGER CHORD>

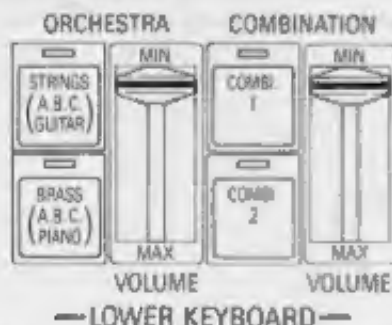
- 1) Select the rhythm pattern and depress the SYNCHRO START button.



- 2) Turn on SINGLE FINGER CHORD.



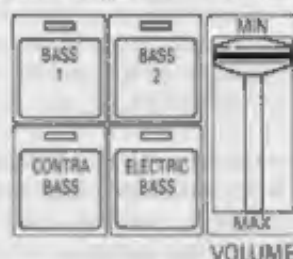
- 3) Set the Lower Keyboard voices.



—LOWER KEYBOARD—

The strings and brass ORCHESTRA voices automatically switch to guitar and piano voices for automatic accompaniment synchronized with the Auto Rhythm Unit. The COMBINATION voices can be used for constant accompaniment.

- 4) Set the Pedal Keyboard voices.

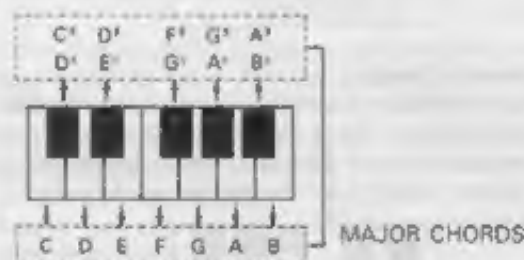


(This illustration shows FC-20.)

—PEDALS—

- 5) Now if you hold down one of the keys on the Lower Keyboard, you will automatically introduce the chord and bass accompaniment into the established rhythm.

By pressing only one note, a major chord (whose root or fundamental is the key played on the Lower Keyboard), will result. The diagram below shows the relationship between the key which is pressed and the major chord which is produced.



Therefore, if you pressed a "C", you are hearing a "C major chord". If you want an "F major chord", you need only to press the "F" note.



● Producing Minor or Seventh Chords

In addition to major chords, you can also use the Single Finger Chord function to produce Automatic Accompaniment with minor, seventh or minor seventh chords.

Minor Chords

A minor chord can be obtained by simultaneously pressing the key corresponding to the root, and any black key to the left of it.



Seventh Chords

By pressing the key corresponding to the root and any white key to the left of it, you can obtain a seventh chord (also known as a dominant seventh chord).



Minor Seventh Chords

Three notes are required to produce a minor seventh chord in the Single Finger Chord mode. Simultaneously press the key corresponding to the root, and any black (minor) and any white (seventh) key to the left of it.



★ When using SINGLE FINGER CHORD:

1. The proper bass note will be automatically provided, based on the Lower Keyboard notes played.
2. The chord produced will sound in the same octave regardless of where it is played on the keyboard.
3. CUSTOM VOICES cannot be played on the Lower Keyboard. (FC-20)

Automatic Accompaniment by Fingering an Entire Chord <FINGERED CHORD>

1) Set Auto Rhythm.

If you depress the SYNCHRO START button, you can make the rhythm and the accompaniment start at the same time.

2) Turn on FINGERED CHORD.



3) Set the Lower Keyboard voices.

4) Set the Pedal Keyboard voices.

5) If you finger a chord on the Lower Keyboard, you can obtain Automatic Accompaniment synchronized with the rhythm.

Instead of merely pressing a root note (and additional note(s) to determine chord "type" as in Single Finger Chord), FINGERED CHORD permits you to form the chord yourself (by playing the proper 3 or 4 notes). It will then determine what chord you are playing and will automatically select and play the corresponding bass note.

Automatic Accompaniment Using Both Lower and Pedal Keyboards <CUSTOM A.B.C.>

- 1) Set Auto Rhythm.
- 2) Turn on the CUSTOM A.B.C.



- 3) Set the Lower Keyboard voices.
- 4) Set the Pedal Keyboard voices.
- 5) If you finger a chord on the Lower Keyboard, and depress a key on the Pedal Keyboard, you can obtain Automatic Accompaniment.

In its most basic usage, CUSTOM A.B.C. is very similar to FINGERED CHORD because it permits you to play the chords manually. However, CUSTOM A.B.C. allows even further participation on your part, advancing your musical growth even more.

Instead of automatically providing the bass, you can press the pedal corresponding to the chord you are playing. At the same time, because the pedals are independent of the Lower Keyboard in the Custom A.B.C. mode, more complex harmonic structures become available. For example, a C major 9 chord can be obtained by playing a C pedal and an E minor 7 chord.

● MEMORY



If you press the MEMORY button together with the SINGLE FINGER CHORD, the FINGERED CHORD or the CUSTOM A.B.C. button, the automatic rhythm accompaniment will continue even if you should remove your hand from the Lower Keyboard. (With the Custom A.B.C. program the bass note selected for pedal accompaniment will also be retained in the memory.) Using this MEMORY function you have only to touch the Lower Keyboard to effect a chord change. A welcome convenience indeed!

- ★ The memory functions only when the Auto Rhythm Unit is on.

● CONSTANT



This switch is used to disengage the automatic accompaniment from the Auto Rhythm pattern. When the CONSTANT button and the SINGLE FINGER CHORD or FINGERED CHORD button are pressed together, the Automatic Accompaniment will no longer match the Auto Rhythm pattern. Instead, the chord and the bass note will be produced continuously, as if the respective keys were being held down.

● NORMAL



This button is used to cancel all AUTO BASS CHORD modes and to return your Electone to a normal (conventional) operating mode. When the NORMAL button is pressed, you may manually play the Lower Keyboard and pedals to provide your own desired accompaniments without introducing any AUTO BASS CHORD functions.